

REMARKS

Applicant wishes to thank the Examiner for considering the present application. In the Final Office Action dated October 31, 2005, Claims 1-6, 9-15, and 17-43 are pending in the application. Applicant respectfully requests the Examiner for a reconsideration of the rejections.

Claims 1, 31, 36, and 37 stand rejected under 35 U.S.C. §103(a), as being unpatentable over *Schlichenmaier* (5,120,114) in view of *Kim* (6,842,683). Applicant respectfully traverses.

Claim 1 recites determining a presence of a trailer and applying brake-steer to the vehicle in response to the trailer by applying at least one brake to a wheel to reduce the turning radius of the vehicle and trailer. Claim 1 was amended slightly to be consistent with the first part of Claim 1 in that the brake-steer is applied in response to the presence of the trailer rather than just the trailer. Claim 31 was amended in a similar manner to include in response to the presence of a trailer. Applicant respectfully believes that the Examiner is forming a piecemeal, hindsight reconstruction of the invention. The *Schlichenmaier* reference is set forth for determining the presence of a trailer. Applicant admits that a trailer detection unit 7 is illustrated in the *Schlichenmaier* reference. However, no teaching or suggestion is provided for brake-steering by applying at least one brake at a first vehicle wheel to reduce a vehicle turning radius of the vehicle and trailer. The *Schlichenmaier* reference merely applies brakes to increase the control of the vehicle either with or without a trailer. The *Kim* reference is cited for reducing the vehicle turning radius. Applicant has reviewed the *Kim* reference and can find no teaching or suggestion for the presence of a trailer. There is no teaching for reducing the turning radius of the vehicle and trailer. Further, the *Kim* reference is merely a method for controlling the stability of a vehicle. It should be noted that the *Kim* reference in Col. 2, lines 45-55, teaches "applying braking force to an inner rear wheel when the understeering (plowing) occurs in which a vehicle is pushed outwardly from a desired traveling course while turning." This does not reduce the turning radius of the vehicle and trailer. It appears that this passage is merely trying to make the vehicle turn on the desired turning path. With reference to Fig. 1 of the present application, if A2 is the desired path, A1 would be an understeering or plowing condition. It appears that the *Kim* reference is merely trying to allow the vehicle to maintain its steering radius. The steering radius is fixed geometrically in the vehicle. The present invention on the other hand, tries to reduce the turning radius of the vehicle and trailer. Thus, brake-steer actually allows the vehicle to reduce the turning radius further than that which is geometrically

allowable by the steering configuration. Thus, the combination of the *Schlichenmaier* reference and the *Kim* reference fails in many ways. First, the *Kim* reference fails to apply brake-steer to reduce the turning radius of a vehicle and trailer since no trailer is taught or suggested in the reference. The *Schlichenmaier* reference also fails to teach reducing the turning radius of the vehicle and trailer by applying brake-steer. The *Schlichenmaier* reference merely determines the presence of a trailer and uses the presence or absence of a trailer to change the yaw rate of the vehicle and not the turning radius of the vehicle. Therefore, Applicant respectfully requests the Examiner to reconsider the rejection of Claim 1.

Claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Schlichenmaier* in view of *Kim* in further view of EP-0253964 (EP '964). The EP reference does not teach or suggest the elements missing from Claim 1. That is, no teaching or suggestion is set forth for reducing the turning radius of the vehicle in response to the presence of a trailer. Applicant therefore respectfully requests the Examiner to reconsider this rejection as well.

Claims 3 and 5 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Schlichenmaier* in view of *Kim* in further view of EP-0253964 as applied to Claim 2, and further in view of *Oyama* (6,112,845). Although the *Oyama* reference detects being in reverse by reverse detecting unit 18, the *Oyama* reference does not teach or suggest the application of brake-steer to reduce the radius of a trailer and vehicle. Applicant therefore respectfully requests the Examiner to reconsider the rejection of Claims 3 and 5.

Claim 4 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Schlichenmaier* in view of *Kim* in further view of EP-0253964 as applied to Claim 2, and further in view of *McColl* (4,372,407). Claim 4 is directed to generating a reverse signal from a push button. The *McColl* reference does not teach or suggest the use of brake-steer in response to the detection of a trailer. Applicant therefore respectfully requests the Examiner for reconsideration of this rejection as well.

Claim 6 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Schlichenmaier* in view of *Kim* in further view of EP '964 as applied to Claim 2, and in further view of (US 2005/0027402) to *Koibuchi*. The *Koibuchi* reference also does not teach or suggest the use of a vehicle and trailer and therefore no reduction in the turning radius of the trailer and vehicle is taught or suggested. Applicant respectfully requests the Examiner to reconsider the rejection of this claim as well.

Claims 9, 17, 29, and 30 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Schlichenmaier* in view of *Kim* in further view of *Wood* (5,708,435).

Claims 9, 17, 29, and 30 describe applying a vehicle brake and a trailer brake. However, Applicant respectfully submits that no teaching or suggestion is provided in the *Wood* reference for applying the vehicle brake and trailer brake to reduce the turning radius of the vehicle and trailer in response to the presence of a trailer. Applicant therefore respectfully requests the Examiner to reconsider this rejection as well.

Claims 10 and 32 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Schlichenmaier* in view of *Kim* in further view of *Posselius* (6,804,597).

The *Posselius* reference also does not teach or suggest the application of brake-steer to reduce the turning radius of the vehicle and trailer. Applicant therefore respectfully requests the Examiner to reconsider this rejection as well.

Claims 11, 12, 33, and 34 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Schlichenmaier* in view of *Kim* in further view of *Noll* (5,455,557).

Applicant respectfully submits that the *Noll* reference also does not teach or suggest the reduction of the turning radius of the vehicle in response to detecting the presence of a trailer. Applicant respectfully requests the Examiner to reconsider this rejection as well.

Claims 13, 15 and 35 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Schlichenmaier* in view of *Kim* in further view of JP 2002-12172 (JP '172).

Applicant respectfully submits that neither reference teaches or suggests reducing the turning radius of a trailer and vehicle in response to the presence of a trailer.

Claim 14 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Schlichenmaier* in view of *Kim* in further view of *Traechtler* (6,804,597).

Applicant respectfully submits that neither the *Schlichenmaier* nor the *Traechtler* reference teaches or suggests the use of brake-steer to reduce the turning radius of the trailer and vehicle in response to the presence of a trailer.

Claim 18 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Schlichenmaier* in view of *Kim* in further view of *Wood*, and in further view of EP '964.

The Examiner is directed to the rejection of Claim 2 for response to this rejection. Likewise, the rejection of Claims 20, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, and 38 correspond, respectively, to claims set forth above. Applicant therefore respectfully requests the Examiner to reconsider the rejection of these claims as well.

Claims 39 and 40 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Schlichenmaier* in view of *Kim* as applied to Claim 31 above, in further view of *Gerum* (5,747,683).

Claims 39 and 40 correspond, respectively, to generating a steering wheel angle signal and a yaw rate sensor signal in applying brake-steer in response to the reverse direction signal and the steering wheel angle signal or the reverse direction signal and the yaw rate signal. Applicant respectfully submits that the *Gerum* reference does not teach or suggest applying both the vehicle and the trailer brakes to reduce the turning radius of a vehicle and trailer. Applicant therefore respectfully requests the Examiner to reconsider this rejection as well.

Claim 41 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Schlichenmaier* in view of *Kim* in further view of *Matsuda*.

The *Matsuda* reference also does not teach or suggest towing of a vehicle. Therefore, the *Matsuda* reference does not teach or suggest the elements missing from the above combination.

Claim 42 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Schlichenmaier* in view of *Kim* in further view of *Gerum* and *Morita* (5,480,221).

The *Morita* reference also does not teach or suggest the use of a trailer and vehicle combination. Applicant therefore respectfully requests the Examiner to reconsider this rejection as well.

Claim 43 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Schlichenmaier* in view of *Kim* in further view of *Breen* (5,005,130). Applicant respectfully submits that the *Breen* reference does not teach or suggest applying brake-steer in order to reduce the turning radius of the vehicle. Applicant therefore respectfully requests the Examiner to reconsider this rejection as well.

In light of the above remarks, Applicant submits that all objections are now overcome. Applicant respectfully submits that the application is now in condition for allowance and expeditious notice thereof is earnestly solicited. Should the Examiner have any questions or comments the Examiner is respectfully requested to call the undersigned attorney. Please charge any fees required in the filing of this amendment to Deposit Account 06-1510.

Respectfully submitted,



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